

PRODUCT INFORMATION



1,2-Dipalmitoyl-d₆-*rac*-glycero-3-PC

Item No. 28932

CAS Registry No.: 82765-17-1

Formal Name: 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl-16,16,16-d₃)oxy]-3,5,9-trioxa-4-phosphapentacosan-25,25,25-d₃-1-aminium, inner salt, 4-oxide

Synonyms: 16:0/16:0-d₆-PC, PC(16:0/16:0)-d₆, 1,2-Dihexadecanoyl-d₆-*rac*-glycero-3-Phosphocholine, 1,2-Dihexadecanoyl-d₆-*rac*-glycero-3-Phosphatidylcholine

MF: C₄₀H₇₄D₆NO₈P

FW: 740.1

Chemical Purity: ≥98% (1,2-Dipalmitoyl-*rac*-glycero-3-PC)

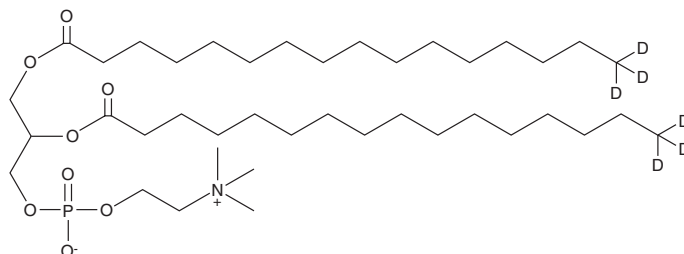
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₆); ≤1% d₀

Supplied as: Solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1,2-Dipalmitoyl-d₆-*rac*-glycero-3-PC is intended for use as an internal standard for the quantification of 1,2-dipalmitoyl-*rac*-glycero-3-PC by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

1,2-Dipalmitoyl-d₆-*rac*-glycero-3-PC is supplied as a solid. A stock solution may be made by dissolving the 1,2-dipalmitoyl-d₆-*rac*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. 1,2-Dipalmitoyl-d₆-*rac*-glycero-3-PC is soluble in methanol.

Description

1,2-Dipalmitoyl-*rac*-glycero-3-PC is a phospholipid that contains palmitic acid (Item No. 10006627) at the *sn*-1 and *sn*-2 positions. It has been used as a component of liposomes, monolayers, and bilayers to study the influence of chirality on membrane dynamics.¹⁻⁴ 1,2-Dipalmitoyl-*rac*-glycero-3-PC has been used to study electric field-induced orientation of phospholipid head groups and dynamics of liposomal phase transitions.^{1,2}

References

1. Vollhardt, D., Nandi, N., and Banki, S.D. *Phys. Chem. Chem. Phys.* **13**(11), 4812-4829 (2011).
2. Mishima, K., Tanaka, S., and Ogihara, T. *Biochim. Biophys. Acta.* **1565**(1), 107-111 (2002).
3. Boyanov, A.I., Tenchov, B.G., Koynova, R.D., et al. *Biochim. Biophys. Acta* **732**, 711-713 (1983).
4. Moy, V.T., Keller, D.J., Gaub, H.E., et al. *J. Phys. Chem.* **90**(14), 3198-3202 (1986).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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